

REMARKS

Reconsideration of the present application in view of the above claim amendments following remarks is respectfully requested.

Status of the Claims

Claims 12-17, 19-21 and 32-33 are presented. Claims 22-31 were previously withdrawn. Claims 16, 19, 21-23, 26-30 and 32 are amended. Claim 19 is amended to remove the redundant limitation, and for clarity. Claim 21 is amended to correct claim dependency, and to overcome the claim objection as discussed below. Claim 32 is amended to remove "biogenic active ingredients" from the Markush group of dermatopharmaceutical auxiliaries/additives. The remaining amended claims are amended for clarity. Support is found throughout the substitute specification as originally filed. Claims 1-11 and 18 were previously canceled. Claim 20 is canceled without prejudice in the present action. New claim 33 is added. Support is found, *inter alia*, on page 10, lines 22-23.

No new matter has been introduced.

Previously pending claims 14, 20 and 21 were objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. Dependent claim 20 allegedly recited the limitations that were already present in base claim 32, thereby failing to further limit the claim. Claims 14 and 21 were objected to as allegedly being duplicate claims. In response, claim 20 is canceled in the present action, thereby mooting the objection. Further, the dependency of claim 21 is corrected to depend from claim 19, so that the claims are no longer duplicate claims.

In view of these amendments, the Examiner is respectfully requested to withdraw the claim objections.

Summary of the Invention as Claimed

The claims as presently amended are directed to a method of treating skin damaged by UV-A and/or UV-B radiation, comprising applying to skin in need thereof, a composition comprising (a) a **solvent** extract from the pulp of Argania spinosa fruit; and (b) at least one dermatopharmaceutical auxiliary and/or additive, selected from a Markush group of such auxiliaries and additives, **which no longer includes "biogenic active ingredients"** (claim 32). In certain preferred embodiments (claim 19) the extract of the method is selected from the group consisting of a non-saponifiable fraction, a triterpene fraction, lupeol, alpha-amyrine, beta-amyrine, taraxasterol and psi-taraxasterol. In another preferred embodiment, the solvent for solvent extraction comprises **hexane or supercritical carbon dioxide** (new claim 33).

Rejections under 35 U.S.C. § 103(a)

Previously pending claims 14-17, 19-21 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chernane et al. (Agrochimica, 1999, 43(3/4), 137-150, full English translation; "Chernane") in view of Basu-Modak et al. (Free Radical Biology & Medicine, 2000, 35(8), 910-921; "Basu-Modak"), further in view of Katiyar et al. (International Journal of Oncology, 2001, 18, 1307-1313; "Katiyar"). Applicants respectfully traverse the Examiner's rejection.

Chernane discloses phenolic components of Argan fruit pulp extract (an **aqueous methanol extract**), specifically, catechin and epicatechin, which are interpreted by the Examiner to be "biogenic active ingredients", thereby allegedly meeting the limitation of claim 32, component (b).

Basu-Modak discloses UVA-protective activity of epicatechin and 3'-O-methyl epicatechin; however, this article is clearly directed to **dietary**, not topical application of these substances (page 910, right hand column, bottom

paragraph), one of which (epicatechin) is found in aqueous methanolic Argan pulp extract, as disclosed by Chernane, above.

Katiyar discloses UV/UVB-protective activity of green tea polyphenols, including epicatechin, which are also cited as antioxidants, and are thus interpreted by the Examiner to be "biogenic active ingredients", again thereby allegedly meeting the limitation of claim 32, component (b).

Even though applicants do not necessarily agree with the Examiner's characterizations of Chernane, Basu-Modak and Katiyar, in order to further prosecution, the claims have been amended in a manner which overcomes the obviousness rejection. Thus, as presently amended, base claim 32 no longer includes "biogenic active ingredients" in the Markush group of dermatopharmaceutical auxiliaries/additives, component (b). Further, new claim 33 limits the solvent for preparation of the solvent extract of Argan fruit, component (a), to the non-polar hexane or supercritical carbon dioxide. Such a non-polar extract would be completely different from the highly polar extract obtained by the use of aqueous methanol as taught by Chernane.

For at least these reasons, applicants' claims as presently amended define novel and patentably unobvious subject matter over the cited combination of references.

Previously pending claims 12-17, 19-21 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chernane, Basu-Modak and Katiyar, further in view of Charrouf et al. (*Plantes Medicinales et Phytotherapie*, 1991, 25 (203), 112-119, full English translation, "Charrouf"). Applicants respectfully traverse the Examiner's rejection.

Chernane, Basu-Modak and Katiyar are discussed above. This combination of references fails to specifically disclose that the extract comprises a non-saponifiable fraction or a triterpene fraction. Therefore, the Examiner joined Charrouf.

Charrouf discloses the identity of some of the major components of the unsaponifiable fraction of the hexane extract of the fruit pulp of *Argania spinosa* (Argan), including a non-saponifiable fraction and a triterpene fraction.

As discussed above, even though applicants do not necessarily agree with the Examiner's characterizations of Chernane, Basu-Modak, Katiyar and Charrouf, in order to further prosecution, the claims have been amended in a manner which overcomes the obviousness rejection. Thus, as presently amended, base claim 32 no longer includes "biogenic active ingredients" in the Markush group of dermatopharmaceutical auxiliaries/additives, component (b). Further, new claim 33 limits the solvent for preparation of the solvent extract of Argan fruit, component (a), to the non-polar hexane or supercritical carbon dioxide. Such a non-polar extract would be completely different from the highly polar extract obtained by the use of aqueous methanol as taught by Chernane. Further, the addition of Charrouf does nothing to overcome the substantial deficiencies of the combination of Chernane, Basu-Modak and Katiyar discussed above.

Therefore, for at least these reasons, applicants' claims as presently amended define novel and patentably unobvious subject matter over the cited combination of references.

Finally, it is noted that the Examiner referenced a combination of Chernane, Basu-Modak, Katiyar and **Wang et al.** (Office Action, page 8, middle).

The full reference for Wang et al. has not been provided. However, it is assumed, for the sake of furthering prosecution, that the referenced combination should actually be Chernane, Basu-Modak, Katiyar and Charrouf, which has been addressed above. If this is not the case, the Examiner is respectfully requested to provide the full citation of the Wang et al. reference.

Conclusion

In summary, in view of the above claim amendments and remarks, applicants believe that all of the pending claims as amended are in condition for allowance. The Examiner is respectfully requested to reconsider, withdraw the rejections and allow the claims.

If any additional fees are required in support of this application, authorization is granted to charge our Deposit Account No. 50-1943.

Respectfully submitted,

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Date

/Robert N. Henrie II/
Robert N. Henrie II
Reg. No. 60,851
Fox Rothschild LLP
2000 Market Street; 20th Floor
Philadelphia, PA 19103-3222
Tele: (215) 299-2000
Fax: (215) 299-2150